



Department of Electrical and Electronics Engineering

TEDx Talk

(RECORDED)

How Semiconductor and AI are driving forces for Future Innovation

Section A

📅 8 April 2025

🕒 03:00 PM - 04:00 PM

📍 Room No: B-201

🎓 IV Sem

Speaker: Mr. Sougata Bhattacharjee

Section B

📅 9 April 2025

🕒 04:00 PM - 05:00 PM

📍 Room No: B-201

🎓 IV Sem

Speaker: Mr. Sougata Bhattacharjee

Faculty Coordinator

Ms. Kavitha C H

Senior Assistant Professor - EEE

Convenor

Dr. Sakthivel Aruchamy

HoD - EEE

“ How Semiconductors and AI are driving forces for Future Innovation ”

- Mr. Sougata Bhattacharjee

Date: 08 April 2025

Venue: B201

Timings: 03:00PM – 04:00PM

Faculty Coordinator

Prof. Kavitha C.H

TEDx





- Sougata Bhattacharjee

The Department of Electrical and Electronics Engineering (EEE) at New Horizon College of Engineering organized a recorded TEDx Talk event on April 8th 2025, exclusively for 4th Semester students. The session featured esteemed speaker, Mr. Sougata Bhattacharjee, Senior Staff Engineer/Manager at Samsung Semiconductor India Research (SSIR), Bengaluru. His visionary talk focused on "How Semiconductors and AI are Driving Forces for Future Innovation."

Mr. Bhattacharjee specializes in VLSI, particularly in Integrated Circuits (IC) and Chip Design, and Verification, RTL design, ASIC Verification, and Blockchain. With over a decade of experience in the semiconductor domain, he has previously led organizations like Intel. His academic credentials include an M.Tech in Micro Electronics from BITS Pilani and a PG Diploma in VLSI from CDAC.

A prolific innovator, Mr. Bhattacharjee has presented several papers at prestigious international conferences such as DAC, DVCON, and CDNLIVE, focusing on VLSI-related topics. Within his company, he drives innovation by addressing technical queries and introducing methods to enhance project productivity.

Summary of Technical Expertise

- Proficient in developing testbench infrastructure using UVM for IP and subsystem-based design.
- Skilled in creating and coding UVCs, including Driver, Monitor, Sequencer, Agent, and Scoreboard.
- Experienced in writing directed and random test scenarios to identify design bugs and ensure comprehensive verification.
- Expertise in creating Verification Plans, Test Plans, Feature Extraction Plans, and Assertion Plans.
- Hands-on experience with System Verilog for Pre-Silicon Verification and RTL design concepts using Verilog.
- Adept in Assertion-Based Verification (ABV) and achieving functional and code coverage closure.

The event gave students invaluable insights into semiconductor innovation and its integration with AI. It inspired them to explore cutting-edge technologies and their potential to transform the future of Engineering and Technology. Conducted in the TED format, this session was independently organized by the local community in line with TED's mission of "Ideas Worth Spreading."







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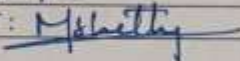
Department of Electrical & Electronics Engineering TEDx Talk -Report 2024-25

Sem/Sec	Room Number Faculty Coordinator	Date	Time	Topic	Link
IV/A	B-201 Prof.Kavitha,CH	8.4.2025	3.00pm-4.00pm	How Semiconductor & AI is a driving force for Future innovation Sougata Bhattacharjee TEDxVVIT	https://www.youtube.com/watch?v=t-ZM5E_DOEw

NAME: MOKSHA LAKSHMI. M

USN: 1NH23EE056

SEMESTER/SECTION: 4th/A

SIGNATURE OF STUDENT: 

TEDx Talk Report

Different aspects of VLSI:- Power, Speed, Area. Power consumption should be low. SSI, LSI, MSI. VLSI is divided into frontend and backend. Frontend is divided into 2 RTL verification. Backend is divided into 2 physical design and customizer design. Artificial Intelligence is divided as ANI, AGI and ASI. Tools for installation Hyperledger fabric \rightarrow Transactin speed, PBFT consensus mechanism, MSP/CA. With the help of blockchain multiple engineers can work at the same time. No technology can't be answer to all the questions/problems.



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NAME: <u>Sukshatha S</u>
USN: <u>IM23EE020</u>
SEMESTER/SECTION: <u>IVth / A</u>
SIGNATURE OF STUDENT: <u>Sukshatha S</u>

TEDx Talk Report

Sougata Bhattacharjee talks about the importance of improving semiconductor technology to make AI even better. He shares examples of how AI is being used in everyday life, such as healthcare, driving cars, and smart home devices. The combination of semiconductors and AI is driving innovation and will continue to shape our future, making our lives easier and more connected. As we create faster & more efficient chips, AI can solve more complex problems & help us in new ways.



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NAME:	B Umme Javeriya
USN:	INJH23EE011
SEMESTER/SECTION:	IV th Sem, A
SIGNATURE OF STUDENT:	

TEDx Talk Report

- Synergy Between Semiconductors and AI:**
Bhattacharjee emphasizes that the future, of Semiconductors technology and AI is fundamental to technological progress.
- Impact on Various Industries:** The talk highlights how this integration is transforming multiple sectors, including healthcare, finance, and transportation.
- Future prospects:** looking ahead, Bhattacharjee discusses the potential of emerging technologies such as Web 4.0 which encompasses the convergence of AI & Blockchain. It can create new opportunities for security decentralization & innovation.



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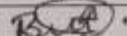
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NAME: Bhagyashree IND1

USN: 1NH23EE012

SEMESTER/SECTION: IV A

SIGNATURE OF STUDENT: 

TEDx Talk Report

Sougata Bhattacharjee emphasized that the fusion of AI with Semiconductors technology is revolutionizing industries by enabling more efficient processing capabilities and fostering the development of Intelligent systems. He highlighted how this synergy is instrumental in driving innovations that are shaping future technological landscape.



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Department of Electrical & Electronics Engineering

ATTENDANCE SHEET

Event: How Semiconductor & AI is a driving force for Future innovation.

Date: 08/04/2025

S. No.	Name of Participant	Student / Staff	Department	Signature
1	Bushra Shafi	student	EEE	Bly
2	Divya S y	student	EEE	De
3	B Umme Javeriya	student	EEE	B. Umme Javeriya
4	Deekshitha . S	student	EEE	Deekshitha
5	Dupa Himathu	Student	EEE	Dupa
6	Nayana Y	student	EEE	Nayana
7	Charanya	student	EEE	CA
8	meghana	student	EEE	me
9	Bhagyashree	Student	EEE	Bu
10	Kirana- KM	student	EEE	Kir
11	MeghaShree . M .	student	EEE	Me
12	Moksha Lakshmi . M	Student	EEE	Mok
13	Ayomija Abre	Student	EEE	Ayomija
14	Anchal . S	Student	EEE	Anchal
15	Monisha Kumari sv.	Student	EEE	Mo
16	A. M. Likhitha	Student	EEE	Likhitha
17	Apeksh	student	EEE	Apeksh

Sign. of Coordinator(s) : Ch. V
Name of Coordinator(s): Ch. V

Sign. of Head: [Signature]
Name of Head: Dr. SATHYANARAYAN A



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18	Veeresh wodechoddy	A sec	INH20EE411	
19	Saravu m	"	INH24EE408	
20	Nishanth m	"	INH24EE406	
21	Nitin .	"	INH24EE409	
22	Shreyas T	"	INH24EE404	
23	Arun	"	INH20EE401	
24	Vinod Kumar. K	"	INH24EE412	
25	Mustaqeem Fareedi	"	INH23EE058	
26	Dupak. K	"	INH23EE011	
27	Lokesh. M	"	INH23EE049	
28	Dhanush. J	"	INH23EE083	
29	H.K Keerthana.	"	INH23EE029	
30	K.T. Rajwar	"	INH24EE403	K.T.P. ...
31	Kumar. A	"	INH23EE017	Kumar. A
32	Ashish Pandey	"	INH23EE008	
33	Akash basovanoddi bhavikatti	A sec	INH23EE003	
34	Mohammed Kaif A	A sec	INH23EE055	Kaif A
35	Chethan. V	A sec	INH23EE088	Chethan
36	Bharath. R	A sec	INH23EE013	Bharath
37	Suwendra	"	INH24EE410	
38	Kaustubh Singh	"	INH23EE012	

Sign. of Coordinator(s) : Ch.
Name of Coordinator(s): Ch. Kanika

Sign. of Head:
Name of Head: Dr. SARATHWEL A